AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
J	1 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
0001	14-Jul-2003	W807PM-3136-7621	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
CONSTRUCTION & A/E BRANCH 4155 CLAY STREET VICKSBURG MS 39183-3435	DACW38	**See Item 6**	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
	X	9A. AMENDMENT OF SOLICITATION NO. DACW38-03-B-0032
	X	9B. DATED (SEE ITEM 11) 23-Jun-2003
		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer [ ] is extended, [X] is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

[ ] A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

[ ] B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

[ ] C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

[ ] D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Reference Invitation For Bids No. DACW38-03-B-0032, dated 23 Jun 03 for FC/MR&T, Yazoo Basin, Yalobusha Watershed, Chickasaw, Calhoun and Webster Counties, Mississippi, Demonstration Erosion Control Project, Riser Pipe Grade Control Structures, RP-02-01, scheduled to open on 24 Jul 03 at 1400 hours, is hereby amended as follows:

(See Page 2 for Continuation)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED 11-Jul-2003

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

Section 01356 STORM WATER POLLUTION PREVENTION PLAN is revised and reissued in its entirety.

STORM WATER CONSTRUCTION GENERAL PERMIT – The State of Mississippi Department of Environmental Quality (MDEQ), Storm Water Construction General Permit, attached at the end of Section 01356 STORM WATER POLLUTION PREVENTION PLAN, is deleted and replaced by MDEQ, Storm Water Small Construction General Permit.

Section 02226 EXCAVATION, FILL, BACKFILL, EMBANKMENT, AND CONTROL OF WATER is revised and reissued in its entirety.

Pages revised by this amendment have the notation “Revised by Amendment 0001” at the bottom of the page. Text added by this amendment is shown as underlined. Text deleted by this amendment is shown as overstruck.

Encls:
Section 01356, pages 1 thru 13
Small Construction General Permit, pages 1 thru 17
Section 02226, pages 1 thru 9

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01356

STORM WATER POLLUTION PREVENTION PLAN

-- End of Section Table of Contents --

SECTION 01356

STORM WATER POLLUTION PREVENTION PLAN

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 4354	(1999) Sampling of Geosynthetics for Testing
ASTM D 4439	(2002) Geosynthetics
ASTM D 4491	(1999a) Water Permeability of Geotextiles by Permittivity
ASTM D 4533	(1991; R 1996) Trapezoid Tearing Strength of Geotextiles
ASTM D 4632	(1991; R 1996) Grab Breaking Load and Elongation of Geotextiles
ASTM D 4751	(1999a) Determining Apparent Opening Size of a Geotextile
ASTM D 4759	(1988; R 1996) Determining the Specification Conformance of Geosynthetics
ASTM D 4873	(2002) Identification, Storage, and Handling of Geosynthetic Rolls and Samples

1.2 SYSTEM DESCRIPTION

Pursuant to the State of Mississippi Small Construction General Permit for storm water discharges from construction activities, the requirements contained herein shall constitute the Storm Water Pollution Prevention Plan, hereafter called the SWPP Plan for this contract. A copy of the State of Mississippi, Mississippi Department of Environmental Quality, Office of Pollution Control, Water Pollution Control, STORM WATER SMALL CONSTRUCTION GENERAL PERMIT is attached at the end of this section. The Contractor shall implement and diligently pursue all measures required herein. The purpose of the SWPP Plan is to control soil erosion and storm water runoff caused by the construction activities under this contract to the extent necessary to prevent sediment from accumulating in existing ditches, leaving the contract rights-of-way, or entering the adjacent streams. Requirements under this section of the specifications are supplemental to and shall become part of the overall Environmental Protection Plan required by Section 01354 ENVIRONMENTAL PROTECTION.

1.2.1 Permit Notifications

~~The Contractor shall notify the permitting agency by submitting a revised Notice of Intent as required by the General Permit for storm water discharges for this project as stated below. The Contractor shall maintain copies of all correspondence with the permitting agency with the SWPP Plan for the duration of this contract.~~The Contractor will be provided a copy of the Storm Water Small Construction General Permit at the Preconstruction Conference. The Storm Water Small Construction General Permit, along with the Contractor's Storm Water Pollution Prevention Plan, shall be kept on-site and available for review for the duration of the contract.

~~1.2.2 Construction Notice of Intent~~

~~A Construction Notice of Intent (CNOI) and the SWPPP required by the State of Mississippi will be filed by the Government with the permitting agency prior to the award of this contract. The Contractor shall revise the original CNOI by identifying the Contractor's name, address, and the individual having the day to day control over the project. The Contractor shall certify and submit the revised CNOI to the permitting agency at least 48 hours prior to beginning work. A CNOI form is attached at the end of this section. A copy of the original CNOI will be provided to the Contractor during the Preconstruction Conference.~~

~~1.2.3 Notice of Termination~~

~~Upon successful completion of all permanent erosion and sediment controls for this project, and at the direction of the Contracting Officer, the Contractor shall complete a Notice of Termination Form (NOT) and submit to the Mississippi Department of Environmental Quality stating that all permanent erosion and sediment controls have been completed. The NOT shall include attached copies of all Monthly Inspection Reports and Certification Forms for Erosion and Sediment Controls completed during the contract period. A copy of the NOT is attached at the end of this section.~~

~~1.2.4 Permit Notice~~

~~The Contractor shall complete the State of Mississippi's Storm Water Construction Permit Proof of Coverage form attached at the end of this section. The Contractor shall post this form in a conspicuous place near the main entrance of the construction site in compliance with the Storm Water Construction General Permit requirements.~~

1.3 SUBMITTALS

Government approval is required for all submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Certificates

Filter Fabric

The Contractor shall submit a certificate of compliance attesting that the filter fabric meets the specified requirements.

1.4 SITE DESCRIPTION

1.4.1 Nature of Construction Activity

The work consists of furnishing all plant, labor, materials and equipment, and constructing sixteen (16) riser pipe grade control structures in Chickasaw, Calhoun, and Webster Counties, Mississippi. Principal features of work include clearing and grubbing, excavation, fill, control of water, engineering fabric, stone protection, miscellaneous items, corrugated metal pipe, reforestation, erosion control, lime treatment, welding, concrete work, storm water pollution prevention, and environmental protection. All units of measure are metric.

1.4.2 Major Activities Which Disturb Soils

The major activities which will disturb the soil at the site include clearing and grubbing, excavation, embankment, and grading.

1.4.3 Estimated Areas Affected

The total area of the construction site and the area of soil that will be disturbed is:

SITE	CONSTRUCTION AREAS (HA)	DISTURBED SOIL AREAS (HA)
YAL-01	1.060	0.530
YAL-02	1.259	0.629
YAL-03	0.955	0.477
YAL-04	0.915	0.457
YAL-05	0.855	0.428
YAL-07	1.550	0.775
YAL-08	1.341	0.671
YAL-09	0.685	0.343
YAL-10	0.718	0.359
YAL-11	0.881	0.441
YAL-12	1.211	0.606
YAL-13	0.979	0.490
YAL-14	0.903	0.451
YAL-15	0.687	0.344
YAL-16	0.715	0.358
YAL-17	2.394	1.197

1.4.4 Runoff Coefficient

The estimated runoff coefficient at each site will be approximately 0.55 after construction activities are completed.

1.4.5 Contract Drawings and Specifications

The following features are shown on or can be determined from the contract drawings and specifications:

a. The approximate slopes after the major construction activities.

b. Areas of soil disturbance.

c. The location where stabilization practices are required.

d. Surface waters.

e. Typical best management practices which are anticipated to be used in the control of sediment and erosion control.

1.4.6 Waters Affected

The surface waters which may be affected by this contract are the adjacent streams.

1.5 CONTROLS

The controls and measures required by the Contractor are described below.

1.5.1 Erosion and Sediment Controls

1.5.1.1 Stabilization Practices

a. General - The stabilization practices required to be implemented shall include permanent seeding, mulching, erosion control matts, preservation of mature vegetation, etc. However, the Contractor may, at his option and at no additional cost to the Government, provide a fall and winter temporary erosion control measure by seeding with rye grass or other approved winter grasses. The Contractor shall maintain a log of the dates when the major grading activities occur, (e.g. clearing and grubbing, excavation, embankment, and grading); when construction activities permanently cease on a portion of the site; and when stabilization practices are initiated, and shall attach this log to the SWPP Plan. Except as precluded by unsuitable conditions caused by the weather, stabilization practices shall be initiated as soon as practicable, but within no more than 14 days, in any portion of the site where construction activities have permanently ceased.

b. Interim Stabilization Practices - The interim stabilization practices required are described below.

(1) Only trees that are within the indicated limits to construct the permanent work shall be removed.

(2) Existing vegetative cover shall be preserved to the extent possible to reduce erosion.

c. Permanent Stabilization Practices - The permanent stabilization practices to be implemented are described below.

(1) Permanent seeding (erosion control) shall be established as soon as practicable after the embankment is completed.

(2) Mulch shall be placed on areas of permanent turfing treatment as specified.

(3) Erosion control matting shall be provided on areas as shown on the drawings.

1.5.1.2 Structural Practices

a. General - Structural practices shall be implemented to divert flows from exposed soils, temporarily store flows, or otherwise control runoff in order to prevent sediments from accumulating in existing ditches, leaving the contract rights-of-way, or entering the adjacent streams. The Contractor shall implement the required structural

practices and the necessary structural practices as may be required to control runoff for his construction methods and procedures. Structural practices shall be implemented in a timely manner during the construction process to minimize erosion and sediment runoff. Structural practices shall be removed after they have served their intended purpose and after their removal has been approved by the Contracting Officer.

b. Devices - Structural practices may include but shall not be limited to the following devices (typical details are shown on the drawings):

(1) Silt fences

(i) General

Filter fabric shall meet the requirements of PART 2 PRODUCTS, paragraph FILTER FABRIC.

Filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life at a temperature range of -17.7 degrees C to 48.9 degrees C.

If wooden stakes are utilized for silt fence construction, they shall have a minimum diameter of 50 mm when oak is used and 100 mm when pine is used. Wooden stakes shall have a minimum length of 1.5 meters.

If steel posts (standard "U" or "T" section) are utilized for silt fence construction, they shall have a minimum weight of 2 kg per meter and a minimum length of 1.5 meters.

Wire fence reinforcement for silt fences using standard strength filter fabric shall be a minimum of 14 gauge and shall have a maximum mesh spacing of 152 mm.

(ii) Installation

The height of a silt fence shall be a minimum of 406 mm above the ground surface and shall not exceed 864 mm above the ground surface.

The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are unavoidable, filter fabric shall be spliced together only at a support post with a minimum 152 mm lap and securely sealed.

A trench shall be excavated approximately 100 mm wide and 100 mm deep on the upslope side of the proposed location of the measure.

When wire support is used, standard-strength filter fabric may be used. Posts for this type of installation shall be placed a maximum of 3 meters apart. The wire mesh fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples at least 25 mm long, tie wires or hog rings. The wire shall extend into the trench a minimum of 50 mm and shall not extend more than 864 mm above the ground surface. The standard strength fabric shall be stapled or wired to the wire fence, and 200 mm of the fabric shall be extended into the trench. The

fabric shall not be stapled to existing trees.

When wire support is not used, extra-strength filter fabric shall be used. Posts for this type of fabric shall be placed a maximum of 1.8 meters apart. The filter fabric shall be fastened securely to the upslope side of the posts using 25 mm long (minimum) heavy-duty wire staples or tie wires and 200 mm of the fabric shall be extended into the trench. The fabric shall not be stapled to existing trees.

The 100 mm by 100 mm trench shall be backfilled and the soil compacted over the filter fabric.

Silt fences shall be removed upon approval by the Contracting Officer.

(2) Straw Bales.

(i) Installation

Bales shall be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another. Bale rows used to retain sediment shall be turned uphill at each end of each row.

All bales shall be either wire-bound or string-tied. Straw bales shall be installed so that bindings are oriented around the sides rather than along the tops and bottoms of the bales in order to prevent deterioration of the bindings.

The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 100 mm. After the bales are staked and chinked (gaps filled by wedging), the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built up to 100 mm against the uphill side of the barrier.

Each bale shall be securely anchored by at least two stakes (minimum dimensions 50 mm x 50 mm x 1 m) or standard "T" or "U" steel posts (minimum weight of 2 kg per meter) driven through the bale. The first stake or steel post in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or steel pickets shall be driven a minimum 0.5 meter deep into the ground to securely anchor the bales.

The gaps between bales shall be chinked (filled by wedging) with straw to prevent water from escaping between the bales. Loose straw may be scattered over the area immediately uphill from a straw bale barrier to increase barrier efficiency.

Straw bale barriers shall be removed upon approval by the Contracting Officer.

(3) Diversion Dikes

(i) Installation

Diversion dikes shall have a maximum channel slope of 2 percent

and shall be adequately compacted to prevent failure. The minimum height measured from the top of the dike to the bottom of the channel shall be 0.5 meter. The minimum base width shall be 1.8 meters and the minimum top width shall be 0.6 meters. Diversion dikes shall be located to minimize damages caused by construction operations and traffic.

c. Device Applicability

(1) Straw bales, silt fences, earth dikes, and drainage swales for diversion of runoff upstream from work areas.

(2) Straw bales, silt fences and earth dikes for retention of flow in drains.

(3) Sediment containment by providing straw bales or silt fences along the toe of fill and cut slopes.

(4) Earth dikes for temporary sediment basins in major drainage channels downstream from work areas.

Structural practices shall be properly placed to effectively retain sediment immediately after completing each phase of work (e.g. clearing and grubbing, excavation, embankment, and grading) in each independent runoff area (e.g. after clearing and grubbing in an area between a ridge and drain). Structural practices shall be placed, and as work progresses, removed/replaced/relocated as needed for work to progress in each runoff area. Structural practices, to the extent necessary to prevent sediment from accumulating in existing ditches, leaving the contract rights-of-way, or entering the adjacent streams shall be implemented as follows:

(1) Along the downhill perimeter edge of disturbed areas.

(2) Along the top of the slope or top bank of drainage ditches, channels, swales, etc. that traverse disturbed areas.

(3) Along the toe of cut slopes and fill slopes of the construction areas.

(4) Perpendicular to the flow in the bottom of existing drainage ditches, channels, swales, etc. that traverse disturbed areas or carry runoff from disturbed areas. Rows of straw bales or silt fences shall be spaced a maximum of 30 meters apart in such existing drains that are within the limits of the work.

(5) Perpendicular to the flow in the bottom of new drainage ditches, channels, and swales. Rows of straw bales or silt fences shall be spaced a maximum of 60 meters apart in drains with slopes equal to or less than 5 percent and 30 meters apart in drains with slopes steeper than 5 percent.

(6) At the entrance to culverts that receive runoff from disturbed areas.

1.5.2 Storm Water Management

1.5.2.1 Management Practices

The storm water management practices that shall be permanently installed under this contract are as follows:

a. Erosion control.
b. Stone protection.
c. Reforestation.

1.5.2.2 Methods

a. Erosion control shall be in accordance with Section 02960 EROSION CONTROL.

b. Stone protection shall be in accordance with Section 02380 STONE PROTECTION.

c. Reforestation shall be in accordance with Section 02951 REFORESTATION.

1.5.3 Other Controls

1.5.3.1 Waste Disposal

No solid materials, including building materials, shall be discharged to waters of the United States, except as authorized by a Section 404 permit. Other requirements are included in Section 01354 ENVIRONMENTAL PROTECTION.

1.5.3.2 Off-site Vehicle Tracking

Off-site vehicle tracking of sediments shall be minimized.

1.5.3.3 Compliance with Regulations

The Contractor shall ensure and demonstrate compliance with applicable State or local waste disposal, sanitary sewer or septic system regulations.

PART 2 PRODUCTS

2.1 FILTER FABRIC FOR SILT SCREEN FENCE

The geotextile, as defined by ASTM D 4439, shall consist of polymeric filaments which are formed into a stable network such that filaments retain their relative positions. The filament shall consist of a long-chain synthetic polymer composed of at least 85 percent by weight of ester, propylene, or amide, and shall contain stabilizers and/or inhibitors added to the base plastic to make the filaments resistance to deterioration due to ultraviolet and heat exposure. The geotextile shall conform to the physical property requirements in paragraph ACCEPTANCE REQUIREMENTS, subparagraph TESTING.

2.2 ACCEPTANCE REQUIREMENTS

2.2.1 General

All brands of geotextile to be used will be accepted on the following basis.

2.2.2 Mill Certificates or Affidavits

The mill certificate or affidavit shall attest that the filter fabric and

factory seams meet chemical, physical, and manufacturing requirements specified. The mill certificate of affidavit shall specify the actual Minimum Average Roll Values and shall identify the fabric supplied by roll identification numbers.

2.2.3 Testing

If requested by the Contracting Officer, Government personnel shall collect filter fabric samples in accordance with ASTM D 4354 for testing to determine compliance with any or all of the requirements specified pursuant to ASTM D 4759 and the following table:

EXTRA STRENGTH FILTER FABRIC FOR SILT SCREEN FENCE

PHYSICAL PROPERTY	TEST PROCEDURE	REQUIREMENTS
Grab Tensile Strength	ASTM D 4632	45.4 kg min.
Elongation (%)	ASTM D 4632	30 % max.
Trapezoid Tear	ASTM D 4533	25 kg min.
Permittivity	ASTM D 4491	0.2 sec-1 min.
AOS (U.S. Std Sieve)	ASTM D 4751	20-100

NOTE: Standard strength filter fabric for silt screen fence shall meet the same minimum requirements for AOS and Permittivity as the extra strength filter fabric, but may have lower strengths for the remaining properties listed in the table.

2.3 IDENTIFICATION, STORAGE AND HANDLING

Filter fabric shall be identified, stored and handled in accordance with ASTM D 4873.

PART 3 EXECUTION

3.1 MAINTENANCE

The Contractor shall maintain the temporary and permanent vegetation, erosion and sediment control measures, and other protective measures in good and effective operating condition by performing routine inspections to determine condition and effectiveness, by restoration of destroyed vegetative cover, and by repair of erosion and sediment control measures and other protective measures. The following procedures shall be followed to maintain the protective measures identified in the SWPP Plan.

a. Silt Fences

Silt fences shall be inspected in accordance with paragraph INSPECTIONS. Any required repairs shall be made promptly. Close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting. Should the fabric on a silt fence decompose or become ineffective, and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits shall be removed when deposits reach one-third of the height of the barrier or a maximum height of 225 mm. When a silt fence is no longer required, it shall be removed. The immediate area occupied by the fence and any

sediment deposits shall be shaped to an acceptable grade. The areas disturbed by this shaping shall receive erosion control in accordance with Section 02960 EROSION CONTROL.

b. Straw Bales

Straw bale barriers shall be inspected in accordance with paragraph INSPECTIONS. Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales. Necessary repairs to barriers or replacement of bales shall be accomplished promptly. Sediment deposits shall be removed when deposits reach one-half of the height of the barrier. When a straw bale barrier is no longer required, it shall be removed. The immediate area occupied by the bales and any sediment deposits shall be shaped to an acceptable grade. The areas disturbed by this shaping shall receive erosion control in accordance with Section 02960 EROSION CONTROL.

c. Diversion Dikes

Diversion dikes shall be inspected in accordance with paragraph INSPECTIONS. Close attention shall be paid to the repair of damaged diversion dikes and necessary repairs shall be accomplished promptly. When diversion dikes are no longer required, they shall be shaped to an acceptable grade. The areas disturbed by this shaping shall receive erosion control in accordance with Section 02960 EROSION CONTROL.

3.2 INSPECTIONS

3.2.1 General

The Contractor shall inspect disturbed areas of the construction site, areas used for storage of materials that are exposed to precipitation that have not been finally stabilized, stabilization practices, structural practices, other controls, and areas where vehicles exit the site at least once every seven (7) calendar days and within 24 hours of the end of any storm that produces ~~100~~12 mm or more rainfall at the site. Where sites have been finally stabilized, such inspection shall be conducted at least once every month.

3.2.2 Field Inspections

Disturbed areas and areas used for material storage that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the SWPP Plan shall be observed to ensure that they are operating correctly. Discharge locations or points shall be inspected to ascertain whether storm water pollution prevention measures are effective in preventing significant impacts to receiving waters. Locations where vehicles exit the site shall be inspected for evidence of offsite sediment tracking.

3.2.3 Inspection Reports

For each inspection conducted, the Contractor shall complete a Mississippi Storm Water Pollution Prevention Plan Inspection Report form. The report shall be signed by the Contractor. The report shall be furnished to the Contracting Officer within 24 hours of the inspection as a part of the Contractor's daily CQC REPORT. A copy of the Mississippi Storm Water Pollution Prevention Plan Inspection Report form is included at the end of

this section. A log of the inspection dates shall be maintained on the job site and become a part of the SWPP Plan.

3.2.4 Monthly Inspection Report and Certification Form for Erosion and Sediment Controls

On the first working day of each month the Contractor shall complete, sign and attach to the SWPPP a Monthly Inspection Report and Certification Form for Erosion and Sediment Controls for the previous month's inspections. A copy of this form is found at the end of this section. On the first working day of each month, the Contractor shall also furnish one copy of the form to the Contracting Officer as part of the Contractor's daily CQC Report. ~~Upon successful completion of all permanent erosion and sediment controls for this project, the Contractor shall attach copies of all of the monthly inspection forms to the NOT and submit to the permitting agency as specified in paragraph NOTICE OF TERMINATION~~.

3.2.5 Revisions to the SWPP Plan

Based on the results of the inspection and immediately after the inspection, the Contractor shall provide to the Contracting Officer any recommended changes to the SWPP Plan. The Contracting Officer will approve or disapprove the proposed changes within seven (7) calendar days after receipt. Changes to the SWPP Plan shall be implemented within seven (7) calendar days following approval.

-- End of Section --

State of Mississippi
Mississippi Department of Environmental Quality (MDEQ)
Office of Pollution Control (OPC)
Water Pollution Control
STORM WATER
SMALL CONSTRUCTION GENERAL PERMIT

THIS CERTIFIES THAT

SMALL CONSTRUCTION PROJECTS (EQUAL TO OR GREATER THAN ONE ACRE AND LESS THAN FIVE ACRES) ARE GRANTED PERMISSION TO DISCHARGE STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE TERMS AND CONDITIONS OF THIS PERMIT

INTO

WATERS OF THE STATE OF MISSISSIPPI

in accordance with effluent limitations, inspection requirements and other conditions set forth in Parts I through VII hereof. This permit is issued in accordance with the provisions of the Mississippi Water Pollution Control Law (Section 49-17-1 et seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder, and under authority granted pursuant to Section 402(b) of the Federal Water Pollution Control Act.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

_____

AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit Issued: March 11, 2003 **Permit No. MSR15**
Permit Expires: February 29, 2008

STORM WATER SMALL CONSTRUCTION
GENERAL NPDES PERMIT

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Part I. Permit Applicability and Authorization

A. **Permit Area.** The permit covers all areas of the State of Mississippi.

B. **Covered Discharges**. Discharges composed entirely of storm water from small construction activities, except as noted in Part 1. E., including clearing, grading, excavating and other land disturbing activities equal to or greater than one (1) acre and less than five (5) acres.[1] These discharges are automatically designated as small construction activities under the National Pollutant Discharge Elimination System (NPDES) storm water program and are automatically covered under this permit. Small construction activities disturbing less than one (1) acre are designated if:

- The project is part of a larger common plan of development or sale with a cumulative planned disturbance of equal to or greater than one (1) acre and less than five (5) acres (for example, individual or commercial lots that are part of a subdivision or a commercial development that initially impacts less than one (1) acre but will ultimately exceed the one (1) acre threshold[2]), or

- The Executive Director of the Mississippi Department of Environmental Quality (MDEQ) designates the construction activity based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the State.

Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, and original purpose of the facility (for example, existing ditches, channels, or other similar storm water conveyances, as well as routine grading of existing dirt roads, asphalt overlays of existing roads, and other similar maintenance activities).

C. **Obtaining Authorization. Owners or operators are authorized to discharge storm water associated with small construction activity under the terms and conditions of this permit upon commencement of small construction land disturbing activities (i.e., Construction may begin after development of the required Storm Water Pollution Prevention Plan (SWPPP) and the completion of the Small Construction Notice of Intent (SCNOI)).**

D. **On-going Construction Activities.** Projects that are on-going as of March 10, 2003 and are equal to or greater than one (1) acre and less than five (5) and do not have coverage under Construction General Permit MSR10 must obtain coverage by complying with the terms and conditions of this permit.

E. **Allowable Non-Storm Water Discharges**. Owner or operators are authorized for the following non-storm water discharges. Except for flows from fire fighting activities, sources of non-storm water below that are combined with storm water discharges associated with construction activity must be identified in the Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

- Discharges from fire-fighting activities
- Fire hydrant flushings
- Waters used to wash vehicles where detergents are not used
- Water used to control dust
- Potable water sources including water line flushings
- Routine external building wash down that does not use detergents
- Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used
- Uncontaminated air conditioning or compressor condensate
- Uncontaminated ground water or spring water
- Foundation or footing drains where flows are not contaminated with process materials such as solvents

[1] *This includes the total area disturbed over the course of the project. For home sites - a minimum of 10,000 ft^2 per home site or the entire lot, if smaller, shall be included.*

[2] *For subdivision development, if the total acreage disturbed for the entire development is 5 acres or greater then all lots are covered by Mississippi's Storm Water Construction General Permit for construction activity over 5 acres (Large Construction).*

F. **Responsibility for Permit Compliance.** The owner(s) of the property and any operator(s) associated with small construction activity on the property shall have joint and several responsibility for compliance with this permit.

G. **This Permit Does Not Authorize:**

- **Discharges of hazardous substances or oil.** This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill.

- **Post Construction Discharges**. This permit does not authorize storm water discharges that originate from the site after construction activities have been completed and the site has undergone final stabilization.

- **Discharges Covered by Another Permit.** This permit does not authorize storm water discharges associated with construction activity that have been covered under an individual permit in accordance with Part I. H. of this permit.

- **Discharges Threatening Water Quality.** This permit does not authorize storm water discharges from construction sites that the Executive Director determines will cause, or have reasonable potential to cause or contribute to, violations of water quality standards. Where such determinations have been made, the Mississippi Environmental Quality Permit Board (Permit Board) may notify the owner or operator that an individual permit application is necessary in accordance with Part I. H. of this permit. However, the Permit Board may authorize coverage under this permit after appropriate controls and implementation procedures designed to bring the discharges into compliance with water quality standards have been included in the Storm Water Pollution Prevention Plan.

- **Discharges to Impaired Receiving Waters.** The SWPPP must specifically identify Best Management Practices (BMPs) which ensure storm water will not cause or contribute to non-attainment of a water quality standard. In cases where the Permit Board becomes aware of potential impairment due to small construction activities, the Permit Board may require the submittal of the SWPPP in order to ascertain whether the selected BMPs are sufficient to comply with requirements of this permit or any other requirements of the Permit Board. The list of impaired receiving waters may be found on the MDEQ web site at www.deq.state.ms.us or by calling 601-961-5171.

H. **Requiring an Individual Permit**

Upon notification of a small construction project, the Permit Board may require an alternate permit. The Permit Board may require any owner or operator of land disturbing activities of equal to or greater than one (1) acre and less than five (5) acres to apply for and obtain an individual NPDES permit. Any interested person may petition the Permit Board to take action under this paragraph. The Permit Board may require any small construction owner or operator to apply for an individual NPDES permit only if the owner or operator has been notified in writing. This notice shall include reasons for this decision, an application form and a filing deadline. The Permit Board may grant additional time upon request.

Part II. Small Construction Notice of Intent (SCNOI)

A. **Small Construction Notice of Intent (SCNOI)**. Prior to the commencement of small construction activity, the owner or operator must complete a Small Construction Notice of Intent (SCNOI). The SCNOI and SWPPP described in Part III shall be submitted to the Mississippi Department of Environmental Quality (MDEQ) **only upon request from MDEQ**; however, the SCNOI and SWPPP must be maintained at the permitted site or locally available in case inspector review is necessary. Failure to complete a SCNOI prior to the commencement of construction activity or to submit a SCNOI when requested is a violation of State regulations. The SCNOI shall be retained by the owner or operator as required by Part IV. E. of this permit. Attachments to the SCNOI must include: a U.S. Geological Survey quadrangle map or copy **(only if required to be submitted to MDEQ)** showing site location and a Storm Water Pollution Prevention Plan (SWPPP).

B. **Where to Submit the Small Construction Notice of Intent, if Requested.** Complete and appropriately signed SCNOI forms must be submitted to:

Chief, Environmental Permits Division
MS Dept of Environmental Quality, Office of Pollution Control
P.O. Box 10385
Jackson, Mississippi 39289-0385

Part III. Storm Water Pollution Prevention Plan (SWPPP)

A. **SWPPP Development.** A SWPPP shall be developed and implemented by the owner or operator of a small construction project. The SWPPP must include a description of appropriate control measures (i.e., BMPs) that will be implemented as part of the construction activity to control pollutants in storm water discharges.

1. The SWPPP shall be retained at the permitted site or locally available. A copy of the SWPPP must be made available to the MDEQ inspectors for review at the time of an on-site inspection.

2. BMPs shall be in place upon commencement of construction.

3. The Executive Director of MDEQ may notify the owner or operator at any time that the SWPPP does not meet the minimum requirements of this permit. After notification, the owner or operator shall amend the SWPPP, implement the changes and certify in writing to the Executive Director that the requested changes have been made. Unless otherwise provided by the Executive Director, the requested changes shall be made within 15 days.

4. The owner or operator shall amend the SWPPP and implement the changes before there is a change in construction, operation, or maintenance, which may potentially effect the discharge of pollutants to State waters.

5. The owner or operator shall amend the SWPPP and implement the changes if the SWPPP proves to be ineffective in controlling storm water pollutants including, but not limited to, significant sediment leaving the site and non-functioning BMPs.

B. **Compliance with Local Storm Water Ordinances.**

1. In addition to the requirements of this permit, the SWPPP shall be in compliance with all local storm water ordinances and shall provide a brief description of applicable local erosion and sediment controls and post-construction BMPs.

2. When storm water discharges into a municipal storm sewer system, the owner or operator must make the SWPPP available to the municipal authority upon request.

C. **SWPPP Details.**

1. **Owner or Operator.** The SWPPP shall identify the "owner or operator" as defined in Part VII. of this permit. The operator's name, complete mailing address and telephone number(s) shall be identified on the plan.

2. **Erosion and Sediment Controls.** The owner or operator shall list and describe controls appropriate for the construction activities and the procedures for implementing such controls. Controls shall be designed to retain sediment onsite and should:

   - Divert upslope water around disturbed areas
   - Limit exposure of disturbed areas to the shortest time possible
   - Disturb the smallest area possible
   - Preserve existing vegetation where possible, especially trees
   - Preserve vegetated buffer zones around any creek, drain, lake, pond or wetland
   - Slow rainfall runoff velocities to prevent erosive flows

- Avoid disturbing sensitive areas such as:
  - Steep and/or unstable slopes
  - Land upslope of surface waters
  - Areas with erodible soils
  - Existing drainage channels
- Transport runoff down steep slopes through lined channels or piping
- Minimize the amount of cut and fill
- Re-vegetate disturbed areas as soon as possible
- Implement best management practices to mitigate adverse impacts from storm water runoff; and
- Remove sediment from storm water before it leaves the site by allowing runoff to pond in controlled areas to drop out sediment
- Filter runoff by using natural vegetation, brush barriers, silt fences, hay bales, etc.

At a minimum, the controls must be in accordance with the standards set forth in " Planning and Design Manual for the Control of Erosion, Sediment & Stormwater," or other recognized manual of design as appropriate for Mississippi. The planning and design manual can be obtained by calling 601/961-5171 or may be found electronically at Mississippi State's educational web site at http://abe.msstate.edu/csd/p-dm/. In addition, Mississippi's "Storm Water Pollution Prevention Plan (SWPPP) Guidance Manual for Construction Activities" is available by calling 601/961-5171 or on the MDEQ website at www.deq.state.ms.us. The erosion and sediment controls shall address the following minimum components.

a. **Vegetative practices** shall be designed to preserve existing vegetation where possible and re-vegetate disturbed areas as soon as practicable after grading or construction. Such practices may include surface roughening, temporary seeding, permanent seeding, mulching, sod stabilization, vegetative buffer strips, and protection of trees.

b. **Structural practices** shall divert flows from exposed soils, store flows or otherwise limit runoff from exposed areas. Such practices may include construction entrance/exit, straw bale dikes, silt fences, earth dikes, brush barriers, drainage swales, check dams, subsurface drains, pipe slope drains, level spreaders, drain inlet protection, outlet protection, detention/retention basins, sediment traps, temporary sediment basins or equivalent sediment controls.

c. **Post construction control measures** shall be installed to control pollutants in storm water after construction is complete. These controls include, but are not limited to on-site infiltration of runoff, flow attenuation using open vegetated swales, exfiltration trenches and natural depressions, constructed wetlands and retention/detention structures. Where needed, velocity dissipation devices shall be placed at detention or retention pond outfalls and along the outfall channel to provide a non-erosive flow.

3. **Non-Storm Water Discharges**. Except for flows from fire fighting activities, sources of non-storm water listed in Part I. E. of this permit that are combined with storm water discharges associated with construction activity must be identified in the SWPPP. The SWPPP must identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

4. **Housekeeping Practices.** The owner or operator shall describe and list practices appropriate to prevent pollutants from entering storm water from construction sites due to poor housekeeping. The owner or operator shall:

- designate areas for equipment maintenance and repair and concrete chute wash off;
- provide waste receptacles at convenient locations;
- provide regular collection of waste;
- provide protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials;
- provide adequately maintained sanitary facilities; and
- provide secondary containment around on-site fuel tanks.

Releases into the environment of hazardous substances, oil, and pollutants or contaminants, which pose a threat to applicable water quality standards or causes a film, sheen or discoloration of State waters, shall be reported to the:

- Mississippi Emergency Management Agency (601) 352-9100
- National Response Center 1-800-424-8802

5. **Prepare Scaled Site Map.** The owner or operator shall prepare a scaled site map showing total area of the site, original and proposed contours (if practicable), direction of flow of storm water runoff, adjacent receiving water bodies, north arrow, all erosion & sediment controls (vegetative and structural), post construction control measures as described in Part III. C. 2. of this permit, and an estimate of the pre and post construction runoff coefficients of the site (see runoff coefficients in Part VII.) and the increase in impervious area.

6. **Implementation Sequence.** The owner or operator shall prepare an orderly listing which coordinates the timing of all major land-disturbing activities together with the necessary erosion and sedimentation control measures planned for the project.

Part IV. Limitations and Requirements

A. Non-Numeric Limitations.

Storm water discharges shall be free from:

1. debris, oil, scum, and other floating materials other than in trace amounts

2. eroded soils and other materials that will settle to form objectionable deposits in receiving waters

3. suspended solids, turbidity and color at levels inconsistent with the receiving waters

4. chemicals in concentrations that would cause violation of State Water Quality Criteria in the receiving waters

B. Implementation Requirements.

The owner or operator shall:

1. implement the SWPPP as required;

2. install downslope and perimeter controls before any major land disturbing activities;

3. install needed erosion controls even if they may be located in the way of subsequent activities, such as utility installation, grading or construction. It shall not be an acceptable defense that controls were not installed because subsequent activities would require their replacement or cause their destruction;

4. implement controls as needed to prevent erosion and adverse impacts to receiving streams and shall install additional and/or alternative erosion and sediment controls when existing controls prove to be ineffective in preventing sediment from leaving the site;

5. maintain all erosion and sediment controls. As a minimum accumulated sediment shall be removed from controls when it reaches 1/3 to 1/2 the height of the control and properly disposed. Non-functioning controls shall be repaired, replaced or supplemented with functional controls within 24 hours of discovery or as soon as field conditions allow;

6. implement the appropriate temporary or permanent vegetative practices within seven calendar days when a disturbed area will be left undisturbed for thirty days or more;

7. minimize off-site vehicle tracking of sediments;

8. remove any off-site accumulations of sediment at a frequency sufficient to minimize offsite impacts (e.g., fugitive sediment in street could be washed into storm sewers by the next rain and/or pose a safety hazard to users of public streets); and

9. comply with applicable State or local waste disposal, sanitary sewer or septic system regulations.

C. Inspection Requirements. Inspection of all erosion controls and other SWPPP requirements shall be performed during land disturbing activities . Inspections shall be performed:

1. at least once a week;

2. within 24 hours of the end of a storm event of a half-inch or greater;

3. as often as is necessary to ensure that appropriate erosion and sediment controls have been properly constructed and maintained and determine if additional or alternative control measures are required.

D. Documentation of Inspections. All inspections required by Part IV. C. of this permit must be documented and certified according to Part V. H. of this permit (see Part IX Inspection Form). Documentation must include the day and time the inspection was performed, who performed the inspection, any deficiencies noted, and corrective action needed. Documentation of all inspections must be kept with the SWPPP. Inspections must continue until such time that planned construction activities have been completed, land disturbing activities have ceased and disturbed areas have been stabilized with no significant erosion occurring.

E. Retention of Records. All records, reports and information resulting from activities required by this permit shall be retained by the owner or operator, on-site if practicable, for a period of at least three years from the date construction was completed.

F. Noncompliance Reporting.

1. **Anticipated Noncompliance.** The owner or operator shall give at least 10 days advance notice, if possible, before any planned noncompliance with permit requirements. Giving notice of planned or anticipated noncompliance does not immunize the owner or operator from enforcement for that noncompliance.

2. **Unanticipated Noncompliance.** The owner or operator shall notify the MDEQ orally within 24 hours from the time he or she becomes aware of unanticipated noncompliance. A written report shall be provided to the MDEQ within 5 working days of the time he or she becomes aware of the circumstances. The report shall describe the cause, the exact dates and times, steps taken or planned to reduce, eliminate, or prevent reoccurrence and, if the noncompliance has not ceased, the anticipated time for correction.

G. Termination of Permit Requirements.

1. **If a SCNOI has not been requested by the Permit Board (SCNOI not submitted to MDEQ).** Upon successful completion of all permanent erosion and sediment controls, inspections and reporting requirements are no longer required. The owner or operator must record the date of completion of all permanent erosion and sediment controls on the final inspection report.

2. **If a SCNOI has been requested by the Permit Board (SCNOI submitted to MDEQ).** Upon successful completion of all permanent erosion and sediment controls for a small construction project a written notification of such shall be submitted to the MDEQ. All inspection forms described in Part IV. D. of this permit and provided in Part IX of this permit must be attached. Coverage is not terminated until done so in writing by the MDEQ.

Part V. Other Permit Conditions

A. Duty to Comply. Any permit noncompliance constitutes a violation of the Mississippi Air and Water Pollution Control Law and is grounds for enforcement action or requiring permit application in accordance with Part I. H. of this permit. It shall not be a defense in an enforcement action that it would have been necessary to halt or reduce the regulated activity in order to maintain compliance with the conditions of this permit.

B. **Continuation of the Expired General Permit and Coverages under the Permit**. All general permits and coverages shall remain in full force and effect until the Permit Board makes a final determination regarding any reissuance, modification, or revocation.

C. **Duty to Mitigate.** The owner or operator shall take all reasonable steps to minimize or prevent any discharge in violation of this permit, which is likely to adversely affect human health or the environment.

D. **Duty to Provide Information.** The owner or operator shall furnish to the Permit Board, within a reasonable time, any information that the Permit Board may request to determine compliance with this permit.

E. **Signatory Requirements.** All SCNOIs shall be signed as follows:

1. **For a corporation** by a responsible corporate officer. For this permit, a responsible corporate officer means: **(a)** a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or **(b)** the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25,000,000 (in second-quarter 1980 dollars) if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

2. **For a partnership or sole proprietorship** by a general partner or the proprietor, respectively; or

3. **For a municipal, State, Federal, or other public agency** by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: **(a)** the chief executive officer of the agency, or **(b)** a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

F. **Duly Authorized Representative.** All reports required by this permit and other information requested by the Permit Board shall be signed by a person described in Part V. E., above, or by a duly authorized representative of that person. A person is duly authorized representative when:

1. the authorization is made in writing by a person described in Part V. E., above, and submitted to the Permit Board, if requested;

2. the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated activity, such as manager, owner or operator, superintendent or one having overall environmental responsibility (a duly authorized representative may be a named individual or any individual occupying a named position).

G. **Changes to Authorization**. If an authorization is no longer accurate because a different individual or position has permit responsibility, a new authorization satisfying the above requirements must be submitted to the Permit Board prior to or together with any reports, information or applications signed by the representative.

H. **Certification.** Any person signing documents under this section shall make the following certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I. **Oil and Hazardous Substance Liability.** Nothing in this permit shall relieve the owner or operator from responsibilities, liabilities, or penalties under Section 311 of the Clean Water Act (CWA).

J. **Property Rights.** The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

K. **Transfers.** Coverage under this permit is transferable after the former coverage recipient and new coverage recipient complete Form VIII. This form must be kept with your records. Submit to MDEQ only if an SCNOI has been submitted.

L. **Severability.** The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

M. **Proper Operation and Maintenance.** The owner or operator shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the owner or operator to achieve compliance with the conditions of this permit including the storm water pollution prevention plan. Proper operation and maintenance includes adequate laboratory controls with appropriate quality assurance procedures and requires the operation of backup or auxiliary facilities when necessary to achieve compliance with permit conditions.

N. **Bypass Prohibition.** Bypass (see 40 CFR 122.41(m)) is prohibited and enforcement action may be taken against a owner or owner or operator for a bypass, unless: **(a)** The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; **(b)** There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the owner or operator should, in the exercise of reasonable engineering judgement, have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and **(c)** The owner or operator submitted notices per Part IV. G. of this permit.

O. **Upset Conditions.** An upset (see 40 CFR 122.41(n)) constitutes an affirmative defense to an action brought for noncompliance with technology-based permit limitations if a permittee shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence, that: **(1)** An upset occurred and the permittee can identify the specific cause(s) of the upset, **(2)** The permitted facility was at the time being properly operated, **(3)** The permittee submitted notices per Part IV. G. 2. of this permit, and **(4)** The permittee took remedial measures as required under Part V. C. of this permit. In any enforcement proceeding, the permittee has the burden of proof that an upset occurred. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

P. **Inspection and Entry.** The owner or operator shall allow the MDEQ staff or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to;

1. enter upon the premises where a regulated activity is located or conducted or where records must be kept under the conditions of this permit;

2. have access to and copy at reasonable times any records that must be kept under the conditions of this permit; and

3. inspect at reasonable times any facilities, equipment or project site.

Q. **Permit Actions.** This permit may be modified, revoked and reissued, or terminated for cause. A request by the owner or operator for permit modification, revocation and reissuance, or termination, or a certification of planned changes or anticipated noncompliance does not stay any permit condition.

Part VI. Reopener Clause

A. **Requirement to Obtain Individual Permit.** If there is evidence indicating potential or realized impacts on water quality due to storm water discharge covered by this permit, the owner or operator may be required to obtain individual permit in accordance with Part I. H. of this permit.

B. **Permit Modification.** Permit modification or revocation will be conducted according to 40 CFR 122.62, 122.63, 122.64 and 124.5.

Part VII. Definitions

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practice to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Control Measure as used in this permit, refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the United States.

Commencement of Construction Activities means the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction-related activities.

Commission means the Mississippi Commission on Environmental Quality.

Clean Water Act "CWA" refers to the Federal Water Pollution Control Act, 33 U.S.C. section 1251 et seq.

Discharge of Storm Water Associated with Small Construction Activity as used in this permit, refers to a discharge of pollutants in storm water runoff from areas where soil disturbing activities (e.g., clearing, grading, or excavation), construction materials or equipment storage or maintenance (e.g., fill piles, borrow area, concrete truck washout, fueling), or other industrial storm water directly related to the construction process (e.g., concrete) are located.

Executive Director means the Executive Director of the Department of Environmental Quality.

Facility or Activity means any NPDES "point source" or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

Large Construction Activity includes clearing, grading, and excavating resulting in a land disturbance that will disturb equal to or greater than five (5) acres of land or will disturb less than five (5) acres of total land area but is part of a larger common plan of development or sale that will ultimately disturb equal to or greater than five (5) acres. Large construction activity is covered by another general permit.

Larger Common Plan of Development or Sale means a contiguous area where multiple separate and distinct construction activities are occurring under one plan. The plan in a common plan of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that construction activities may occur on a specific plot.

Operator for the purpose of this permit and in the context of storm water associated with construction activity, means any party associated with a construction project that meets either of the following two criteria:

1. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or

2. The party has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a storm water pollution prevention plan for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions). This definition is provided to inform permittees of MDEQ's interpretation of how the regulatory definitions of "owner or operator" and "facility or activity" are applied to discharges of storm water associated with construction activity.

Owner or operator means the owner or operator of any "facility or activity" subject to regulation under the NPDES program.

Permit Board means the Mississippi Environmental Quality Permit Board established pursuant to Miss. Code Ann. § 49-17-28.

Pollutant is defined at 40 CFR 122.2. A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, sediment, silt, cellar dirt, and industrial or municipal waste.

Runoff Coefficient means the fraction of total rainfall that will appear at the conveyance as runoff (see values below).

Successful Completion of all permanent erosion and sediment controls means when land disturbing construction activities have been completed and disturbed areas have been stabilized with no significant erosion occurring.

Small Construction Activity is defined at 40 CFR 122.26(b)(15) and incorporated here by reference. A small construction activity includes clearing, grading, and excavating resulting in a land disturbance that will disturb equal to or greater than one (1) acre and less than five (5) acres of land or will disturb less than one (1) acre of total land area but is part of a larger common plan of development or sale that will ultimately disturb equal to or greater than one (1) acre and less than five (5) acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility.

Storm Water means rainfall runoff, snowmelt runoff, and surface runoff.

Storm Water Pollution Prevention Plan "SWPPP" means a plan that includes site map(s), an identification of construction/contractor activities that could cause pollutants in the storm water, and a description of measures or practices to control these pollutants.

Values of Runoff Coefficient C:

Lawns:
Sandy soil, flat 2%0.05-0.10
Sandy soil, average, 2-7%0.10-0.15
Sandy soil, steep, 7% 0.15-0.20
Heavy soil, flat, 2% 0.13-0.17
Heavy soil, average, 2-7% 0.18-0.22
Heavy soil, steep, 7% 0.25-0.35

Business:
Downtown areas 0.70-0.95
Neighborhood areas 0.50-0.70

Residential:
Single family areas 0.30-0.50
Multi units, detached 0.40-0.60
Multi units, attached 0.60-0.75

Residential:
Suburban 0.25-0.40
Apartment dwelling areas 0.50-0.70

Industrial:
Light areas 0.50-0.80
Heavy areas 0.60-0.90

Parks, cemeteries 0.10-0.25
Playgrounds 0.20-0.35
Railroad yard areas 0.20-0.40
Unimproved areas 0.10-0.30

Streets:
Asphalt 0.70-0.95
Concrete 0.80-0.95
Brick 0.70-0.85
Drives and walks 0.75-0.85
Roofs 0.75-0.95

Part VIII. Transfer of Small Construction General Permit Coverage and/or Name Change

Instructions: For Ownership Change-Complete all Items on this page (except Item VIII) and reverse side.
For Name Change Only-Complete Items I, II, V, VI, VII, VIII, and reverse side.

Item I.

Facility Name: _____

Location: (Do Not Use P.O. Box)

Street: _____

City: _____ State: MS Zip: _____

County: _____

Telephone: (_____)_____

Item II.

Responsible official after transfer or name change:

Name: _____

Title: _____

Mailing Address:

Street/P.O. Box: _____

City: _____ State: _____ Zip: _____

Telephone (_____)_____

Item III.

Previous Permittee[1]: _____

Mailing Address:

Street/P.O. Box:_____

City: _____ State: _____ Zip: _____

Telephone: (_____)_____

Item IV.

New Permittee[1]: _____

Mailing Address:

Street/P.O. Box:_____

City: _____ State: _____ Zip: _____

Telephone: (_____)_____

Item V.

Industrial Activity SIC Code: _____

Brief Description:

Item VI.

Will Facility Operations Change? Yes ☐ No ☐

If yes, the appropriate applications and permits may required modification prior to change.

Item VII.

Will Facility Name Change? Yes ☐ No ☐

If Yes, Provide New Name for Permit Coverage.

New Name:_____

Item VIII.

Signature for Name Change

Print Name: _____

Authorized Signature[2]: _____

Title: _____ Date: _____

Item IX.

We the undersigned transfer permit coverage MSR15 __ __ __ __ (complete if known)

From:_____

To:_____ Acquisition Date:_____

By signature below, the new permittee certifies that they are aware of the requirements of the Small Construction General Permit and agrees to accept responsibility and liability for permit compliance. The previous permittee by signature below is transferring permit coverage to the new permittee.

_____ _____

Print New Permittee[1] Name Print Previous Permittee[1] Name

_____ _____

New Authorized Signature[2] Previous Authorized Signature[2]

_____ _____ _____ _____

Title Date Title Date

[1]A Permittee is a company or individual that is covered under the general permit.
[2]**Authorized Signature must be owner or operator.**

Item X. Storm Water

(Check One)

☐ The recipient certifies that they have received a copy of the SWPPP from the original owner.

☐ The recipient is developing a new SWPPP.

If other environmental permits are involved please contact MDEQ at 601/961-5171 for the appropriate MDEQ transfer form or see MDEQ's web site at www.deq.state.ms.us

Submit to MDEQ only if an SCNOI has been submitted. If not submitted, you must keep this form with your records.

Part IX. INSPECTION AND CERTIFICATION FORM FOR SMALL CONSTRUCTION EROSION AND SEDIMENT CONTROLS

This form shall be kept on-site unless required to be submitted to MDEQ (see Part IV. G.)
Inspections must be done weekly and after a half-inch rainfall event.
Coverage number if SCOI submitted (MSR15 __ __ __ __)

(Please Print)

Name: _____

Project Name: _____

Project Street Address: _____

Project City and County: _____

Startup Date: _____

Mailing Address: _____

Mailing City/State/Zip _____

Telephone Number _____

Inspection Log

Date and Time	After a Half-Inch Rain?	Any Deficiencies Observed?	Inspector(s)
_____	Yes or No	Yes or No	_____
_____	Yes or No	Yes or No	_____
_____	Yes or No	Yes or No	_____
_____	Yes or No	Yes or No	_____
_____	Yes or No	Yes or No	_____

Deficiencies Noted During any Inspection (give date(s); attach additional sheets if necessary):

_____

_____

Corrective Action Taken or Planned (give date(s)); (attach additional sheets if necessary):

_____

_____

Based upon this inspection which I or personnel under my direct supervision conducted, I certify that all erosion and sediment controls have been implemented and maintained, except for those deficiencies noted above, in accordance with the Storm Water Pollution Prevention Plan filed with the Office of Pollution Control and sound engineering practices as required by the above referenced permit.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

_____ _____ _____
Authorized Name (Print) Signature Date

Note: This page is intentionally blank

Submit only upon request from MDEQ

Part X.

SMALL CONSTRUCTION NOTICE OF INTENT (SCNOI)

GENERAL NPDES PERMIT MSR15 __ __ __ __ (Number to be assigned by MDEQ if submitted)

Prior to the commencement of small construction activity (see Small Construction General Permit Part I. B.), the owner or operator of a small construction project must complete this form and develop a Storm Water Pollution Prevention Plan (SWPPP) as required by Part III of Mississippi's Small Construction General Permit. **This SCNOI and SWPPP shall be submitted to the Mississippi Department of Environmental Quality (MDEQ) only upon request from MDEQ; however, the SCNOI and SWPPP must be maintained at the permitted site or locally available in case inspector review is necessary.** Attachments with this SCNOI must include: a USGS quad map or copy showing site location (only if required to be submitted to MDEQ) and a Storm Water Pollution Prevention Plan (SWPPP). All questions must be answered – answer "NA" if the question is not applicable.

PROJECT INFORMATION

OWNER CONTACT PERSON: _____

OWNER COMPANY NAME: _____

OWNER STREET (P.O. BOX): _____

OWNER CITY: _____

STATE: _____ **ZIP:** _____

OWNER PHONE # (INCLUDE AREA CODE): _____

OPERATOR (if different from owner) CONTACT PERSON: _____

OPERATOR COMPANY: _____

OPERATOR STREET (P.O. BOX): _____

OPERATOR CITY: _____

STATE: _____ **ZIP:** _____

OPERATOR PHONE # (INCLUDE AREA CODE): _____

PROJECT NAME: _____

DESCRIPTION OF CONSTRUCTION ACTIVITY: _____

_____

ACREAGE DISTURBED (to be covered by this permit must be less than five (5) acres): _____

PHYSICAL SITE ADDRESS (IF NOT AVAILABLE INDICATE THE NEAREST NAMED ROAD):

STREET: _____

CITY: _____ **COUNTY:** _____

ZIP: _____

NEAREST NAMED RECEIVING STREAM: _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ _____

Signature[1] **Date Signed**

_____ _____

Printed Name **Title**

[1]**This application shall be signed according to the Small Construction General Permit, Part V. E.**

If requested, mail to: Chief, Environmental Permits Division; Mississippi Department of Environmental Quality
P.O. Box 10385; Jackson, MS, 39289-0385

SECTION TABLE OF CONTENTS

DIVISION 02 - SITE WORK

SECTION 02226

EXCAVATION, FILL, BACKFILL, EMBANKMENT, AND CONTROL OF WATER

-- End of Section Table of Contents --

SECTION 02226

EXCAVATION, FILL, BACKFILL, EMBANKMENT, AND CONTROL OF WATER

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 698	(2000a) Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/cu. ft. (600 kN-m/cu. m.))
ASTM D 1556	(2000) Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D 2167	(1994) Density and Unit Weight of Soil in Place by the Rubber Balloon Method
ASTM D 2216	(1998) Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
ASTM D 2487	(2000) Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D 2922	(1996e1) Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
ASTM D 3017	(1996e1) Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Fill, Backfill and Embankment

2.1.1.1 General

The Government makes no guarantee that the quantity of required excavation is adequate to provide the quantity of suitable material needed for required fill, backfill and embankment. Material for fill, backfill and embankment shall be obtained from required excavation and/or from Contractor furnished offsite borrow areas or sources approved by the State of Mississippi. See also Section 01354 ENVIRONMENTAL PROTECTION, paragraph PROTECTION OF ENVIRONMENTAL RESOURCES. The Contractor shall obtain the rights-of-way for the Contractor furnished borrow area(s) in accordance with Section 01000 GENERAL CONTRACT REQUIREMENTS, paragraph RIGHTS-OF-WAY.

No separate payment will be made for Contractor-furnished borrow area(s). Material furnished by the Contractor shall be suitable material and shall be approved prior to being used. No frozen material shall be placed and material shall not be placed against frozen surfaces.

2.1.1.2 Suitable Materials

Suitable materials to be used for fill, backfill, impervious upstream blanket and embankment shall be clay (CL, CH) or silt (ML) classified by the Contractor in accordance with ASTM D 2487. At least one classification determination shall be made for each source. Tests results shall be furnished to the Contracting Officer prior to placing material.

2.1.1.3 Unsuitable Materials

Materials which are classified as unsuitable for fill, backfill, impervious upstream blanket and embankment material are defined as masses of organic matter, sticks, branches, roots, trash and other debris.

2.1.1.4 Topsoil

Topsoil shall be obtained from required excavation or furnished by the Contractor from off-site sources at no additional cost to the Government and shall be materials suitable for treatment as specified in Section 02960 EROSION CONTROL.

PART 3 EXECUTION

3.1 EXCAVATION

3.1.1 General

Excavation shall consist of removal of material in preparing the foundation to the lines and grade shown. Wherever unsuitable foundation material is encountered, the unsuitable material shall be removed to the depth directed. Overexcavation will not be permitted except to remove unsuitable material as directed. Backfill of authorized (required) overexcavation and of unauthorized overexcavation shall be as specified in paragraph PLACEMENT, subparagraph BACKFILL and paragraph COMPACTION, subparagraph BACKFILL. Excavated materials shall be disposed of as specified in paragraph DISPOSAL OF EXCAVATED MATERIALS.

3.1.2 Excavation for Structures and Channels

The foundations for the structures, riprap and filters shall be excavated to the lines, grades and sections indicated. The channels at the end of pipes shall be excavated to the lines, grades and sections indicated within an allowable tolerance of plus or minus 150 mm. All foundations shall be solid undisturbed or properly compacted material. The bottom of the excavation upon which concrete is to be placed shall be accurately finished to the dimensions prescribed or directed, within an allowable tolerance of plus 13 mm and minus 50 mm. Where disturbed by the Contractor's operations and elsewhere as required, the excavated surfaces shall be moistened with water or dried as necessary and tamped or rolled with suitable tools or equipment for the purpose of thoroughly compacting them and forming firm foundations upon or against which to place the concrete.

3.1.3 Disposal of Excavated Materials

Excavated materials which are not suitable for use as fill shall be disposed of by placing it in Contractor-furnished upland disposal area(s) outside the Government-furnished rights-of-way. The location and dimensions of the Contractor-furnished disposal area(s) shall be approved prior to disposal of any material and shall not be located in any river, stream, lake or wetland area. The Contractor shall obtain the rights-of-way for the disposal area(s) in accordance with Section 01000 GENERAL CONTRACT REQUIREMENTS, paragraph RIGHTS-OF-WAY. No separate measurement or payment will be made for Contractor-furnished disposal area(s), and all costs therefor shall be included in the applicable contract lump sum prices for the structure sites as listed in the Bidding Schedule.

3.1.3.1 Disposal of Discarded Materials

Discarded material other than those which can be included in the solid waste category shall be disposed of as specified in paragraph EXCAVATION, subparagraph DISPOSAL OF EXCAVATED MATERIALS above.

3.1.4 Stockpiling of Material

Stockpiles of materials temporarily stored for later use shall be located in approved areas. Stockpiled material shall have a maximum height not to exceed 3 m, shall have end and side slopes not steeper than 1V on 2H, and the surfaces of all stockpiles shall be sloped to drain readily and sealed by compacting. Excavation from stockpiles shall be made so as to maintain drainage at all times. No stockpiled material shall be placed within 15 m of top bank of channel excavation or structure excavation. Excavated materials which are suitable for incorporation in the fill shall either be placed directly therein or stockpiled and subsequently used in the fill.

3.2 PLACEMENT

3.2.1 General

Fill shall consist of the placement of material in channel side slopes and any other area where filling is required to obtain the lines and grades above the existing ground surfaces as shown. The foundation surface and any concrete surfaces shall be suitably moistened prior to placement of fill against them. Fill shall not be placed on or against the concrete riser foundation and top slab less than seven (7) days after placement of concrete.

3.2.2 Foundation Preparation

Immediately prior to the placement of fill material, the entire surface on or against which fill is to be placed shall be thoroughly broken to a depth of 150 mm. If for any cause this broken surface or other surface that is to receive fill becomes compacted in such a manner that a plane of seepage or weakness might be induced, if directed, it shall again be thoroughly broken before the depositing of material thereon at no additional cost to the Government. The foundation receiving fill and all partially completed fill shall be kept thoroughly drained. No fill shall be placed on any part of the foundation until such areas have been inspected and approved.

3.2.3 Fill and Embankment

The materials shall be placed or spread in layers, the first layer not more than 150 mm in thickness and the succeeding layers not more than 300 mm in

thickness prior to compaction. Layers shall slope to provide satisfactory drainage during construction. Benching into the slope of the existing embankment may be required in order to place and compact the material in horizontal layers. When the surface of any compacted layer is too smooth to bond properly with the succeeding layer, it shall be adequately scarified before the next layer is placed thereon.

3.2.4 Backfill

Backfill shall consist of the refill of excavation and holes to the existing ground surface or to the lines and grades shown, if below the existing ground surface, except for pipe backfill as specified in paragraph COMPACTION, subparagraph PIPE BACKFILL. Backfill material shall be deposited in 150 mm maximum thickness layers. No backfill shall be placed against slopes steeper than one (1) horizontal to one (1) vertical unless approved.

3.2.5 Pipe Backfill

Pipe backfill shall consist of all fill placed within one meter of the outside circumference of a pipe, including any fill placed as a foundation for a conduit or riser pipe. Pipe backfill, except where the annular filter drainage rings around the corrugated metal pipe are used, shall be placed in layers not exceeding 150 mm in thickness. See Section 02220 MISCELLANEOUS ITEMS for annular filter drainage ring construction requirements.

3.2.6 Topsoil

Topsoil shall be spread to a uniform thickness of 150 mm on areas that are lime treated prior to beginning erosion control operations specified in Section 02960 EROSION CONTROL.

3.3 COMPACTION

3.3.1 Fill and Embankment

~~After a layer of fill or embankment material has been dumped and spread, it shall be harrowed or disced, if required, to break up and blend the materials, unless harrowing or discing is performed to obtain uniform moisture distribution. Harrowing or discing shall be performed with a spring-tooth harrow or other approved harrow or disc to the depth of the uncompacted layer. If one pass of the harrow or disc does not accomplish the breaking up and blending of the materials, additional passes of the harrow or disc may be required, but in no case will more than three passes of the harrow or disc on any one layer be required for this purpose. When the moisture content and the condition of the layer is satisfactory, the lift shall be compacted to at least 90 percent of the maximum density. The maximum dry density shall be determined by the Contractor from representative samples of each type of material in accordance with ASTM D 698. Test results shall be furnished to the Contracting Officer prior to placing material. Portions of the fill or embankment which are not accessible to the roller and portions within 900 mm of concrete shall be placed in 100 mm layers and compacted with power tampers to a degree at least equal to that obtained on the other portions of the compacted fill or embankment by rolling as specified. Dumping, spreading, sprinkling, and compacting may be performed at the same time as different points along a section when there is sufficient area to permit these operations to proceed simultaneously.~~Fill and embankment material shall be deposited in 300 mm

maximum thickness layers and compacted by at least three passes of a bulldozer weighing at least 9 100 kg and exerting a tread pressure of at least 42 kPa. The bulldozer or crawler type tractor will not be considered to be compacting when spreading material, and shall be operated at speeds not to exceed 5.6 km/hr when compacting. Fill shall be constructed to the lines and grades shown. A tolerance of plus or minus 50 mm will be permitted in the final dressing provided there are no abrupt humps or depressions in surfaces, the slopes are uniform, and the fill is shaped to drain. Where space limitations preclude the use of a bulldozer, fill material shall be compacted with suitable tampers as described in paragraph COMPACTION, subparagraph PIPE BACKFILL below. A tolerance of plus or minus 50 mm will be permitted in the final dressing.

3.3.2 Impervious Upstream Blanket

Materials for the impervious upstream blanket shall be placed and compacted as specified in paragraph FILL AND EMBANKMENT.

3.3.3 Pipe Backfill

Backfill around the corrugated metal pipe shall be hand compacted from the circumference of the pipe to a distance of at least one meter from the pipe. Backfill shall be compacted by application of a motor driven hand tamper or other approved hand compaction equipment over the backfill in such a manner that every point of the surface of each layer of pipe backfill shall be compacted to a density at least ~~95 percent of the maximum density~~equal to the adjacent undisturbed material. The pipe shall be held securely in place at all times while tamping is being performed to ensure proper bond between the pipe and the ground.

3.3.4 Topsoil

Compaction is not required for topsoil.

3.3.5 Definition of a Pass

A pass shall consist of one complete coverage of the surface of a layer by the treads of the roller, tractor or other compacting equipment. Portions of the fill which the compacting equipment cannot reach for any reason shall be compacted by an approved method to the density at least equal to that of the surrounding fill.

3.3.6 Additional Compaction

If the desired compaction of any portion of the fill or backfill is not secured by the minimum number of passes specified, additional complete passes may be directed over the surface area of such designated portion and an equitable adjustment will be made in accordance with the Contract Clause CHANGES.

3.4 MOISTURE CONTROL

3.4.1 Fill and Embankment

The materials in each layer of the fill and embankment shall contain the quantity of moisture within the limits specified below. The moisture content shall be as uniform as practicable throughout any one layer of materials. The upper and lower limits of moisture content for clay (CL) and silt (ML), or a mixture of these two soils, shall not be more than plus

or minus 3 percentage points from the optimum moisture content. The upper and lower limits of moisture content for clay (CH) shall not be more than plus or minus 6 percentage points from the optimum moisture content. The Contractor shall determine optimum moisture content from representative samples of each type of material at each site in accordance with ASTM D 698. Test results shall be furnished to the Contracting Officer prior to placing material. The method of determining the optimum moisture content shall be according to ASTM D 2216. Material that is too wet shall be spread on the fill or backfill and permitted to dry, assisted by discing or harrowing, if necessary, until the moisture content is reduced to a value within the specified limits. When the material is too dry, the Contractor will be required to sprinkle each layer on the fill or backfill. Harrowing or other approved methods will be required to work the moisture into the material until a uniform distribution of moisture is obtained. Water applied on a layer of fill or embankment shall be accurately controlled in quantity so that free water will not appear on the surface during or subsequent to rolling. Should too much water be added to any part of the fill or embankment so that the material is too wet to obtain the desired compaction, the rolling and all work on that section of the fill or embankment shall be delayed until the moisture content of the material is reduced to a value within the specified limits and such delay shall not be the basis for a claim. If it is impracticable to obtain the specified moisture content by wetting or drying the material on the fill or embankment, the Contractor may be required to prewet or dry back the material at the source. If, in the opinion of the Contracting Officer, the top or contact surfaces of a partial fill or embankment section becomes too dry or too wet to permit suitable bond between these surfaces and the additional fill or embankment to be placed thereon, the Contractor shall loosen the dried or wet materials by scarifying or discing to such depths as may be directed by the Contracting Officer, shall dampen or dry the loosened material to an acceptable moisture content and shall compact this layer as provided in paragraph COMPACTION, to densities comparable to the underlying fill or embankment, at no additional cost to the Government.

3.4.2 Impervious Upstream Blanket

Moisture control for impervious upstream blanket shall be as specified in paragraph MOISTURE CONTROL, subparagraph FILL AND EMBANKMENT.

3.4.3 Pipe Backfill

Moisture control for pipe backfill shall be as specified in paragraph MOISTURE CONTROL, subparagraph FILL AND EMBANKMENT.

3.4.4 Topsoil

Moisture control for top soil is not required.

3.5 FIELD TESTING CONTROL

Testing shall be the responsibility of the Contractor and shall be performed by an approved commercial testing laboratory or by the Contractor subject to approval. Field density and moisture content tests shall be performed on every other lift of material placed. Field in-place density shall be determined in accordance with ASTM D 1556, ASTM D 2167, or ASTM D 2922. Moisture content tests shall be in accordance with ASTM D 3017. The calibration checks of both the density and moisture gages shall be made at the beginning of a job on each different type of material encountered and at intervals as directed. The Contractor shall submit all results of

control tests and reports as well as records of correction action taken in accordance with Section 01451 CONTRACTOR QUALITY CONTROL.

3.6 SLIDES

In case sliding occurs in any part of the prescribed excavation for the inlet or outlet channel during construction or after completion but prior to acceptance, the Contractor shall remove and repair such portions of the slides as directed. In case the slide is caused through fault or negligence of the Contractor, the slide shall be removed and repaired without cost to the Government. In case the slide is not caused through fault or negligence of the Contractor, an equitable adjustment pursuant to the Contract Clause CHANGES will be made for removing and repairing the slide.

3.7 DIVERSIONS

Suitable material excavated from the diversion ditch shall be used in the embankment portion of the diversion supplemented with such borrow material as may be required. The diversion shall be constructed to the lines and grades shown and graded to drain in the direction shown. The embankment portion of the diversion shall be constructed in conformance with the requirements for fill and embankment in paragraph PLACEMENT and paragraph COMPACTION. The ditch portion of the diversion shall be constructed in conformance with paragraph EXCAVATION.

3.8 CONTROL OF WATER

3.8.1 Stream Description

The project sites are adjacent to hill streams and connecting ditches. During periods of rainfall, the streams can be subject to a fast rise and fall. No hydraulic or hydrologic data has been measured to date.

3.8.2 Contract Requirements

The Contractor shall take such action as necessary to reroute normal flow through the work sites. The Contractor shall construct such ditches, dikes, collectors, drains and sumps as may be required to collect the water within the work area, regardless of its source (this includes ground subsurface water bleeding into the excavation), and shall provide and operate pumps and discharge lines adequate for disposing of the collected water at a point or points outside the work area. When the rerouting, collection and disposal system, or a portion thereof, is no longer needed, it shall be removed. No separate measurement or payment will be made for control of water and all costs therefor shall be included in the applicable contract lump sum prices for the structure sites as listed in the Bidding Schedule.

-- End of Section --